

EUROPEAN UNION ECO-LABEL PROGRAMME

Introduction

On March 23, 1992, the Council of Ministers of the European Community (EC) adopted a regulation that created a European Union (EU) “eco-label award scheme.” The EU Eco-label program is intended to “promote the design, production, marketing and use of products which have a reduced environmental impact during their entire life cycle, and to provide consumers with better information on the environmental impact of products.” (Commission of the European Communities, 1996.) The program is an element of a broader EU strategy to “promote sustainable production and consumption.”

The EU Eco-label is run by the European Commission and administered at the national level by Competent Bodies, which are representative organizations chosen within EU member states. Currently there are Competent Bodies in 17 countries.³ Eight of the member states participate in their own environmental labeling program, while other national programs rely strictly on the EU Eco-label.⁴ Currently, the EU program is being revised (the revision process is explained below). The proposal for the revision envisions full complementarity between the EU Eco-label and the national labels with regard to those products for which there are EU criteria.

To date, criteria have been published for 11 product groups and 12 others are in the development process. The Eco-label has been awarded to 182 products, which corresponds to 40 licences awarded to 22 manufacturers and one importer. The EU Eco-label program considers it too early to assess the market effects of the Eco-label, given that it is still developing and has yet to gain visibility.

Recent Developments

The EU Eco-label program is currently undergoing a major revision of Regulation 880/92. While the program has evolved considerably since it was created in 1992, it is apparent to the European Commission that there is a need to “streamline and improve the approach, methodologies, and working procedures in order to increase its effectiveness, efficiency and transparency.” (EC Newsletter on the EU Eco-label, 1/97) According to the *Eco-label Revision, COM (96) 603 final, SUMMARY*, the current program needs to be revised because:

³ Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom, and Norway. Norway and Iceland have Competent Bodies but cannot vote because they are not EU members, but members of European Economic Area (EEA).

⁴ Austria, France, Germany, Netherlands, and Spain have their own ecolabeling programs. Denmark, Finland, and Sweden participate in the Nordic Swan. Iceland and Norway participate in the Swan as well, but are not member states.

1. the present Eco-label program is considered to be too bureaucratic;
2. the program needs to be clarified, streamlined, and simplified in order to achieve greater market penetration;
3. there is international pressure to better incorporate trade principals such as transparency, non-discrimination, and use of internationally recognized standards; and
4. the proliferation of national ecolabel programs needs to be curbed, since it can lead to internal market distortions and consumer confusion.

The following are among some of the changes that the Commission proposed in the revision:

1. establishment of an independent European Eco-label Organization to develop criteria, thus taking the political process out of the eco-label scheme;
2. introduction of a graduated label with one “flower” representing the achievement of a baseline standard, and two or three representing an improvement;
3. introduction of substantive provisions for ensuring compatibility with international trade principals;
4. increased “complementarity” between the EU and the national programs in the EU, and introduction of a ceiling for the annual fee and a reduced fee for small and medium-sized businesses;
5. ability of non-European producers to apply directly to the scheme; and
6. ability of retailers to apply for products under their own brand name.

Before being adopted, the proposal must be approved by both Parliament and the Council of Ministers. The approval process is iterative, and will require compromises and negotiations. The European Parliament is currently preparing comments on the proposal, at which point the proposal and comments will be sent to the Council of Ministers for comments. A representative from the EU Eco-label program reported that the proposed changes could be adopted by the end of 1998; however, there is no schedule. The representative pointed out that the revision process is quite slow, due to the numerous institutions, industry representatives, and government bodies that are involved, as well as to the wide range of views about the EU Eco-label that must be considered.

One of the aims of the EU revisions is to create conditions favorable to ultimately establishing a single ecolabel in the European Community. According to the EU Eco-label program, it is not likely that the EU Eco-label without programmatic revisions will “supersede national schemes in the long run,” unless “positive action” is taken to stop the proliferation of national programs. Even though national programs have contributed to environmental improvements, they limit the market value of the EU Eco-label; the co-existence of national ecolabels, private ecolabels, and the EU Eco-label is causing confusion in the marketplace. The EU Eco-label program is proposing that over the next five years, national programs phase out the separate labeling of product categories that are covered by the EU Eco-label program. The EU representative noted that the full transition to a single European ecolabel would take much more time.

Program Summary

Several bodies are currently involved in the development to the EU Eco-label program. The proposed changes would greatly simplify this process. Under a revised Regulation, the European Commission will be responsible for the adoption of the Eco-label product groups through Commission's Decisions published in the *EC Official Journal*. The Commission facilitates the program operations and seeks guidance from and consensus among all the other parties. Competent Bodies (representative organizations within each EU member state) are designated in Member States to administer the program at the national level. The Committee of Competent Bodies meets every two to three months and before decisions are made. Interest groups participate in these meetings. The Consultation Forum provides stakeholder input, and is composed of Community-level representatives of five interest groups: industry, commerce, consumer organizations, environmental organizations, and trade unions. There are 14 members in the Forum. The Regulatory Committee, chaired by a non-voting representative of the Commission, has final approval of criteria for product categories and settles any objections made during the award process.

Proposals for new product categories are accepted from any interested party. The selection of product categories is usually initiated by the Commission. The Commission conducts a feasibility study to assess the suitability of the proposed product group, which is evaluated by the ad hoc working group. The ad hoc working group meets at key stages of the process, and is composed of representatives from Competent Bodies, interest groups, and the Consultation Forum.

To develop product criteria, the Commission conducts a market survey to understand the market, and takes an inventory of the impacts of the product on the environment. The impacts are quantified objectively on a "cradle-to-grave" or life-cycle basis using the indicative assessment matrix shown below. These impacts are then evaluated in an environmental impact assessment, which involves a life-cycle assessment (LCA). (The European Commission has issued guidelines for applying LCA.) Based on this analysis, product criteria are proposed. EU's goal is that the product criteria are strict enough so that ecolabeled products represent only 5 to 30 percent market share. The proposed criteria are presented to the Consultation Forum and voted upon by the Regulatory Committee, although the Commission makes the final decision on adopting the criteria. Criteria are valid for three years, at which point they are re-evaluated.

Competent Bodies accept applications from manufacturers of products that are produced or first marketed in their country, and from foreign manufacturers who first import into the EU through their country. Results of independent testing must be submitted with the application, and testing fees are to be paid by the applicant. Awards given to products must be approved by all Competent Bodies, via the Commission. Competent Bodies award the ecolabels within their country, and they must monitor that the ecolabels are properly used.

An application fee of 500 ECUs (~US\$550) is required to cover administration costs, and, if the product receives the award, an annual licensing fee is calculated as 0.15 percent of the annual volume of sales within the EC. These are guideline figures; Competent Bodies have the discretion to set actual fees at levels 20 percent greater or smaller than the guideline figures.

Program Methodology

To promote consistency in the use of LCA in the Eco-label scheme, the European Commission has issued Guidelines for the Application of Life Cycle Assessment in the EU Eco-Label Award Scheme, prepared by the so-called “Groupe des Sages,” a group of European LCA experts. First, the guidelines make it clear that “LCA does not replace, or eliminate the need for other considerations and processes within the decision-making procedure aimed at setting eco-label criteria.” LCA, according to the guidelines, is “used to identify key environmental aspects for the product group considered and provide quantified data on the range of such impacts.” Other assessments are also necessary to determine the criteria, including the market share of the product, the technical and economic feasibility of meeting the criteria, and the ability of the criteria to achieve maximum overall environmental improvement.

The proposed approach for criteria development has not yet resulted in any product criteria, but the following examples illustrate the manner in which the studies and criteria development are proceeding under the new guidelines.

Example: Converted Paper Products

The contract to develop the draft criteria for labeling converted paper products was awarded in late 1995 to a Danish consulting firm. Converted paper products include envelopes, stationary, notebooks, and account registers as the principal product categories. The consultants prepared a market and feasibility survey in early 1996, which was reviewed in April 1996 by the ad hoc working group of experts that had been assembled by the EC. The ad hoc working group decided that an extended market survey should be prepared in order to define as many product subcategories for the labeling criteria as possible in order to widen the environmental benefits of the label. This extended market survey was completed in October 1996 and identified ten product subcategories within the overall category of converted paper products.

From this market study a goal and scope were defined for a life-cycle inventory that was completed in October 1996. It was difficult defining a functional unit that would serve as the basis for LCA of several diverse subcategories of products. The functional unit recommended was 1 kg of paper used for the further manufacturing of the products. The LCA performed stopped at this boundary and did not develop quantitative data on production processes beyond the production of paper.

The EC and the consultants originally intended to gather primary data from the product

manufacturers, but these manufacturers and their trade associations were unable or unwilling to provide the data for such a diverse range of product subcategories. Instead, the consultants relied upon publicly available databases for data on the significant manufacturing processes involved in the life-cycle of paper. The LCA report issued in October 1996 was more of a compilation of these process data than an actual LCA, because it did not combine the processes and process data into the production of a functional unit of 1 kg of paper.

The ad hoc working group met again in the fall of 1996 and could not come to consensus on the functional unit that would apply to all of the product subcategories. There was a concern that the proposed functional unit would focus more on the process of paper making than on the finished products. As a result of the lack of consensus, one product subcategory was chosen, envelopes, for further study and development of labeling criteria. Envelopes were chosen because they are a well-defined product subcategory and are produced and consumed in greater quantities than any of the other subcategories. While it was suggested by the ad hoc working group that plastic envelopes should be considered in the product category, it was not feasible to develop a market study and it was not feasible to develop a functional unit for evaluation. The LCA study did include some data concerning plastic envelopes to allow for comparison to paper envelopes.

Once the product category was narrowed to paper envelopes, the functional unit was defined as standard-sized envelopes with a clear plastic window. The consultants defined the goal of the LCA as “semi-quantitative,” because it was not possible within the time and resources available to compile data for all the products and substances involved in the production of envelopes and it was impossible to define certain inputs during the manufacturing stage (e.g., the amount of ink used to print on the envelope) in terms of the functional unit of the envelope. The quantitative data were mostly related to the pulp and paper process, whereas the qualitative information was mostly related to the chemicals used when converting paper to envelopes and to the specific properties of substances that can affect the recycling of paper envelopes. Recycled paper as an input and recycling as an end-of-life management method were included in the LCA study.

Meetings were held with five envelope producers during the LCA phase to gain a clear understanding of the process of manufacturing and to collect some specific data. A meeting was also held with Greenpeace International, and written comments from the American Forest and Paper Association were also taken into account.

Although life-cycle data on some of the materials used in envelopes, such as glues, were not gathered, it was still necessary and possible to address these materials in the development of criteria. Glues, for instance, can contain toxic substances and can also significantly affect recyclability of envelopes. Lists of substances contained in these glues were made as part of the study.

The LCA report discussed in detail each stage of the life cycle of envelopes and identified the key environmental features for each. Then an impact assessment was performed by categorizing key inputs and outputs into impact categories and identifying impacts as local, regional or global. The

impact categories addressed were: energy consumption (e.g., purchased electricity, feedstock energy in raw material); consumption of raw materials (e.g., water, wood, recycled paper, fossil fuels); eutrophication and pollution of streams and lakes with organic matter (e.g., Chemical Oxygen Demand - COD); toxicity of halogenated organic discharges to water (e.g., Adsorbable Organically bound Halogens - AOX); global warming--emissions of CO₂, etc.; acid rain--emissions of SO₂, NO_x; and substances affecting recycling of paper products.

Labeling criteria were proposed to address these life-cycle impacts, which included the following: requirement to use recycled paper or wood from sustainably managed forests as raw material; substances used for surface coatings, sizing, and glueing should be re-pulpable when the paper is recycled; restrictions on substances used for glues, coatings and inks due to toxicity; the envelope should be de-inkable; plastic films should not be used as coatings; plastic windows should be either re-pulpable or filterable when the paper is recycled; limits on releases of COD and AOX to water from the pulp and paper production; limits on emissions of CO₂, SO₂, and NO₂ to air for pulp and paper production; limit on percentage waste from cutting of envelopes; limit on energy consumption in pulp and paper production.

Example: Shampoos

The EC contracted with the consulting firm to perform the feasibility and market study and LCA for shampoos in late 1995. The feasibility report, delivered in April 1996, was based on a review of the industry and consumer literature, interviews with company representatives and trade association representatives, and a review of available life-cycle data for major ingredients of shampoos (surfactants). The report recommended proceeding with development of labeling criteria for liquid shampoos, excluding professional shampoos, dry or mousse shampoos, and shampoos sold only by prescription. Because the amount of shampoo per use varies so much with the user, the consulting firm recommended that the functional unit be based upon the main characteristic of shampoos, their detergent power.

The feasibility study and recommendations were discussed in the ad hoc working group in the spring of 1996. Because there was no reliable test available to develop a functional unit based upon the detergent power of shampoos, the ad hoc working group decided to base the functional unit on the dry organic content of shampoos per average dose, which was defined as 3 grams of dry organic matter. The consultants then prepared an LCA study based on this functional unit to be used to develop the labeling criteria.

The data collection for the LCA study was made difficult by lack of industry participation. The industry's lack of participation stemmed, at least in part, from a disagreement with the EC over whether a practical functional unit could be established for the development of criteria for labeling. As a result, the consultants focused the life-cycle inventory on the major ingredients of shampoos, surfactants, and on the packaging, and relied upon existing LCA data for the study. Not surprisingly, the use stage predominated for energy consumption and air emissions, especially when the consultants took into account the use of hot water for washing and rinsing and the use of

a hair dryer for drying the hair. Based upon the available surfactant life-cycle inventory data, the consultants concluded that differences in surfactant production impacts were dwarfed by the use stage impacts. The firm also concluded that packaging type was significant principally in the end-of-life stage when incineration was included as a waste management method for certain plastics.

Applying life-cycle impact assessment to the inventory results, the consultants recommended that criteria for labeling be set to address the following impacts: energy and water consumed during use--consumer guidance on the bottle could recommend lowering water temperature, for example, or the use of water conserving devices; packaging waste generation--decrease primary packaging through refills or by increasing recycled content of bottle; water pollution during use--criteria to address biodegradability, bioaccumulation, and nitrogen content; and dangerous ingredients--criteria to restrict certain toxic substances.

Other Information

The EU Eco-labeling program is actively participating in ISO draft standards negotiations. The proposed changes to the EU program are designed in part to ensure compatibility with the ISO standards for environmental labeling. When ISO standards are finalized, the EU program will incorporate them into their standards. In addition, steps have been taken to ensure full access, non discrimination (EU and non-EU parties will be "treated on an equal footing"), and transparency for foreign interests (largely late in the process). No mention is made of possible conflicts between a life-cycle-based product evaluation and GATT's prohibition of trade restrictions based on processing and production methods (PPMs). The EU is not a member of GEN, but may request to become a member shortly. Several of the member countries are members of GEN.

In an effort to make the EU Eco-label program transparent and to increase its visibility, the following information is published in the *Official Journal of the European Communities*: Commission decisions on product groups, product criteria, a list of products for which the Eco-label has been awarded, the names of the licensees, and the names and addresses of the Competent Bodies. In addition, a quarterly newspaper is published by the Commission that provides "an update of the work in progress for each product group," as well as the names of the Competent Bodies and the members of the Consultation Forum (OECD, 14).

The EU Eco-label program does not currently have a program for small and medium-sized businesses; however, it is accessible to them via a sliding fee scale. As mentioned above, the proposed revision would include provisions to reduce the annual fee for small and medium-sized businesses.

In addition to the Eco-label program, the EU is going to introduce a directive for end-of-life electronic equipment. Initially it will address the electronics industry. It has not been decided, however, if the directive will follow the published draft directive for end-of-life vehicles. The planning group will begin working on the draft in fall of 1997 and hopes to present the draft to the

Member States and industry later in the fall.

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Product Categories

Final Categories

- Washing machines
- Soil improvers
- Toilet paper
- Paper kitchen rolls
- Laundry detergents
- Single-ended light bulbs
- Indoor paints and varnishes
- Bed-linen and T-shirts
- Double-ended light bulbs
- Copying paper
- Refrigerators

Criteria Under Review

- Dishwashers (being revised)
- Footwear
- Cat-litter

Study Underway

Bed mattresses
Batteries for consumer goods
Floor-cleaning products
Detergents for dishwashers
Shampoos
Rubbish bags
Converted paper products

Study Temporarily Suspended

Growing media
Insulation materials
Hair sprays

Preliminary Phase of Study

Personal computers
Textile products